

## AMENDMENTS TO THE CLAIMS

Please cancel claims 136, 140, 149, 154, 155, 209, 210, 212-214, 216, 219, 220, 223, 224 and 226 without prejudice.

Please amend claims 137, 138, 141-148, 150-153, 203-205, 217, 218, 221 and 225 as shown the following complete list of claims.

1.-136. (Canceled).

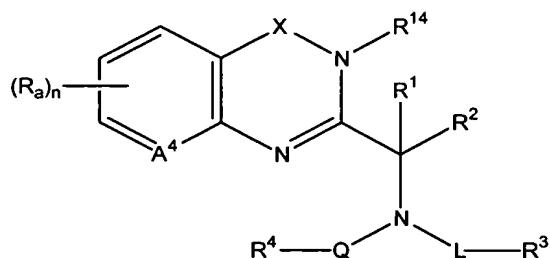
137. (Currently amended) The compound of Claim ~~136~~ 141, wherein X is  $-\text{C}(\text{O})-$ .

138. (Currently amended) The compound of Claim ~~136~~ 141, wherein  $\text{R}^{14}$  is a substituted or unsubstituted phenyl.

139. (Previously presented) The compound of Claim 137, wherein  $\text{R}^{14}$  is a substituted or unsubstituted phenyl.

140. (Canceled).

141. (Currently amended) The A compound of Claim 136, having the formula:



or a pharmaceutically acceptable salt thereof wherein:

$\text{A}^4$  is N;

$\text{X}$  is  $-\text{C}(\text{O})-$  or  $-\text{CH}_2-$ ;

$\text{R}^1$  and  $\text{R}^2$  are members independently selected from the group consisting of H and  $(\text{C}_1\text{-}\text{C}_4)$ alkyl;

$\text{R}^3$  is a member selected from the group consisting of hydroxy,  $(\text{C}_1\text{-}\text{C}_8)$ alkoxy, amino,  $(\text{C}_1\text{-}\text{C}_8)$ alkylamino, di $(\text{C}_1\text{-}\text{C}_8)$ alkylamino,  $(\text{C}_2\text{-}\text{C}_8)$ heteroalkyl,  $(\text{C}_3\text{-}\text{C}_9)$ heterocyclyl,  $(\text{C}_1\text{-}\text{C}_8)$ acylamino, amidino, guanidino, ureido, cyano, heteroaryl,  $-\text{CONR}^9\text{R}^{10}$  and  $-\text{CO}_2\text{R}^{11}$ ;

$R^4$  is substituted or unsubstituted benzyl, wherein said substituents are selected from the group consisting of halogen, halo( $C_1$ - $C_4$ )alkyl, halo( $C_1$ - $C_4$ )alkoxy, cyano, nitro and phenyl;

each  $R^9$ ,  $R^{10}$  and  $R^{11}$  is independently selected from the group consisting of H, ( $C_1$ - $C_8$ )alkyl, ( $C_2$ - $C_8$ )heteroalkyl, heteroaryl, aryl, heteroaryl( $C_1$ - $C_6$ )alkyl, heteroaryl( $C_2$ - $C_8$ )heteroalkyl, aryl( $C_1$ - $C_8$ )alkyl and aryl( $C_2$ - $C_8$ )heteroalkyl;

$R^{14}$  is a substituted or unsubstituted member selected from the group consisting of phenyl, pyridyl, thiazolyl, thienyl and pyrimidinyl;

Q is  $-C(O)-$ ;

L is ( $C_1$ - $C_8$ )alkylene;

the subscript n is an integer from 0 to 4; and

each  $R_a$  is independently selected from the group consisting of halogen, -OR', -OC(O)R', -NR'R'', -SR', -R', -CN, -NO<sub>2</sub>, -CO<sub>2</sub>R', -CONR'R'', -C(O)R', -OC(O)NR'R'', -NR"C(O)R', -NR"C(O)<sub>2</sub>R', -NR'-C(O)NR"R'', -NH-C(NH<sub>2</sub>)=NH, -NR'C(NH<sub>2</sub>)=NH, -NH-C(NH<sub>2</sub>)=NR', -S(O)R', -S(O)<sub>2</sub>R', -S(O)<sub>2</sub>NR'R'', -N<sub>3</sub>, -CH(Ph)<sub>2</sub>, perfluoro( $C_1$ - $C_4$ )alkoxy and perfluoro( $C_1$ - $C_4$ )alkyl, wherein R', R'' and R''' are each independently selected from the group consisting of H, ( $C_1$ - $C_8$ )alkyl, ( $C_2$ - $C_8$ )heteroalkyl, unsubstituted aryl, unsubstituted heteroaryl, (unsubstituted aryl)-(C<sub>1</sub>-C<sub>4</sub>)alkyl and (unsubstituted aryl)oxy-(C<sub>1</sub>-C<sub>4</sub>)alkyl.

142. (Currently amended) The compound of Claim 136 141, wherein  $R^{14}$  is selected from the group consisting of substituted phenyl, substituted pyridyl, substituted thiazolyl and substituted thienyl, wherein the substituents are selected from the group consisting of cyano, halogen, ( $C_1$ - $C_8$ )alkoxy, ( $C_1$ - $C_8$ )alkyl, ( $C_2$ - $C_8$ )heteroalkyl, CONH<sub>2</sub>, methylenedioxy and ethylenedioxy.

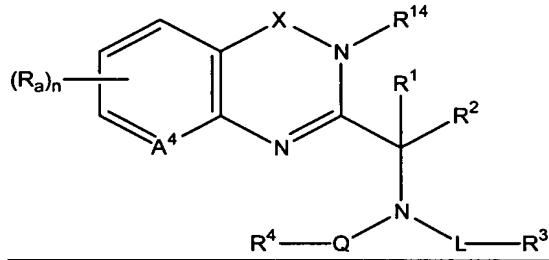
143. (Currently Amended) The compound of Claim 136 151, wherein  $R^{14}$  is substituted phenyl, wherein the substituents are selected from the group consisting of cyano, halogen, ( $C_1$ - $C_8$ )alkoxy, ( $C_1$ - $C_8$ )alkyl, ( $C_2$ - $C_8$ )heteroalkyl, CONH<sub>2</sub>, methylenedioxy and ethylenedioxy.

144. (Currently amended) The compound of Claim 136 141, wherein  $R^4$  is substituted or unsubstituted benzyl, wherein said substituents are selected from the group consisting of halogen, halo( $C_1$ - $C_4$ )alkyl, halo( $C_1$ - $C_4$ )alkoxy, cyano, nitro and phenyl, and  $R^{14}$  is substituted phenyl, wherein the substituents are selected from the group consisting of cyano, halogen,

(C<sub>1</sub>-C<sub>8</sub>)alkoxy, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, CONH<sub>2</sub>, methylenedioxy and ethylenedioxy.

145. (Currently amended) The compound of Claim 136 141, wherein R<sup>1</sup> is selected from the group consisting of methyl, ethyl and propyl, and R<sup>2</sup> is hydrogen.

146. (Currently amended) The A compound of Claim 136, having the formula:



or a pharmaceutically acceptable salt thereof wherein:

A<sup>4</sup> is N;

X is -C(O)- or -CH<sub>2</sub>-;

R<sup>1</sup> and R<sup>2</sup> are each methyl;

R<sup>3</sup> is a member selected from the group consisting of hydroxy, (C<sub>1</sub>-C<sub>8</sub>)alkoxy, amino, (C<sub>1</sub>-C<sub>8</sub>)alkylamino, di(C<sub>1</sub>-C<sub>8</sub>)alkylamino, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, (C<sub>3</sub>-C<sub>9</sub>)heterocyclyl, (C<sub>1</sub>-C<sub>8</sub>)acylamino, amidino, guanidino, ureido, cyano, heteroaryl, -CONR<sup>9</sup>R<sup>10</sup> and -CO<sub>2</sub>R<sup>11</sup>;

R<sup>4</sup> is a member selected from the group consisting of (C<sub>1</sub>-C<sub>20</sub>)alkyl,

(C<sub>2</sub>-C<sub>20</sub>)heteroalkyl, heteroaryl, aryl, heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkyl, heteroaryl(C<sub>2</sub>-C<sub>6</sub>)heteroalkyl, aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl and aryl(C<sub>2</sub>-C<sub>6</sub>)heteroalkyl;

each R<sup>9</sup>, R<sup>10</sup> and R<sup>11</sup> is independently selected from the group consisting of H, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, heteroaryl, aryl, heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkyl, heteroaryl(C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, aryl(C<sub>1</sub>-C<sub>8</sub>)alkyl and aryl(C<sub>2</sub>-C<sub>8</sub>)heteroalkyl;

R<sup>14</sup> is a substituted or unsubstituted member selected from the group consisting of phenyl, pyridyl, thiazolyl, thienyl and pyrimidinyl;

Q is -C(O)-;

L is (C<sub>1</sub>-C<sub>8</sub>)alkylene;

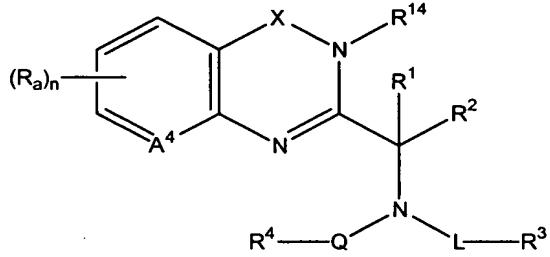
the subscript n is an integer from 0 to 4; and

each R<sub>a</sub> is independently selected from the group consisting of halogen, -OR', -OC(O)R', -NR'R", -SR', -R', -CN, -NO<sub>2</sub>, -CO<sub>2</sub>R', -CONR'R", -C(O)R', -OC(O)NR'R", -NR"C(O)R', -NR"C(O)<sub>2</sub>R', -NR'-C(O)NR'R", -NH-C(NH<sub>2</sub>)=NH, -NR'C(NH<sub>2</sub>)=NH, -NH-C(NH<sub>2</sub>)=NR', -S(O)R', -S(O)<sub>2</sub>R', -S(O)<sub>2</sub>NR'R", -N<sub>3</sub>, -CH(Ph)<sub>2</sub>, perfluoro(C<sub>1</sub>-C<sub>4</sub>)alkoxy

and perfluoro(C<sub>1</sub>-C<sub>4</sub>)alkyl, wherein R', R" and R'" are each independently selected from the group consisting of H, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, unsubstituted aryl, unsubstituted heteroaryl, (unsubstituted aryl)-(C<sub>1</sub>-C<sub>4</sub>)alkyl and (unsubstituted aryl)oxy-(C<sub>1</sub>-C<sub>4</sub>)alkyl.

147. (Currently amended) The compound of Claim 136 141, wherein L is (C<sub>1</sub>-C<sub>4</sub>)alkylene.

148. (Currently amended) The A compound of Claim 136, having the formula:



or a pharmaceutically acceptable salt thereof wherein:

A<sup>4</sup> is N;

X is -C(O)- or -CH<sub>2</sub>-;

R<sup>1</sup> and R<sup>2</sup> are members independently selected from the group consisting of H and (C<sub>1</sub>-C<sub>4</sub>)alkyl;

R<sup>3</sup> is a member selected from the group consisting of (C<sub>1</sub>-C<sub>8</sub>)alkoxy, (C<sub>3</sub>-C<sub>9</sub>)heterocyclyl and heteroaryl (C<sub>1</sub>-C<sub>8</sub>)acylamino;

R<sup>4</sup> is a member selected from the group consisting of (C<sub>1</sub>-C<sub>20</sub>)alkyl, (C<sub>2</sub>-C<sub>20</sub>)heteroalkyl, heteroaryl, aryl, heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkyl, heteroaryl(C<sub>2</sub>-C<sub>6</sub>)heteroalkyl, aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl and aryl(C<sub>2</sub>-C<sub>6</sub>)heteroalkyl;

R<sup>14</sup> is a substituted or unsubstituted member selected from the group consisting of phenyl, pyridyl, thiazolyl, thienyl and pyrimidinyl;

Q is -C(O)-;

L is (C<sub>1</sub>-C<sub>8</sub>)alkylene;

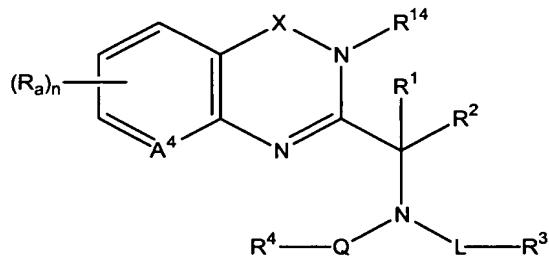
the subscript n is an integer from 0 to 4; and

each R<sub>a</sub> is independently selected from the group consisting of halogen, -OR', -OC(O)R', -NR'R", -SR', -R', -CN, -NO<sub>2</sub>, -CO<sub>2</sub>R', -CONR'R", -C(O)R', -OC(O)NR'R", -NR"C(O)R', -NR"C(O)<sub>2</sub>R', -NR'-C(O)NR"R", -NH-C(NH<sub>2</sub>)=NH, -NR'C(NH<sub>2</sub>)=NH, -NH-C(NH<sub>2</sub>)=NR', -S(O)R', -S(O)<sub>2</sub>R', -S(O)<sub>2</sub>NR'R", -N<sub>3</sub>, -CH(Ph)<sub>2</sub>, perfluoro(C<sub>1</sub>-C<sub>4</sub>)alkoxy and perfluoro(C<sub>1</sub>-C<sub>4</sub>)alkyl, wherein R', R" and R'" are each independently selected from the group consisting of H, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, unsubstituted aryl, unsubstituted heteroaryl, (unsubstituted aryl)-(C<sub>1</sub>-C<sub>4</sub>)alkyl and (unsubstituted aryl)oxy-(C<sub>1</sub>-C<sub>4</sub>)alkyl.

149. (Cancelled).

150. (Currently amended) The compound of Claim 136 141, wherein R<sup>3</sup> is heteroaryl and R<sup>4</sup> is substituted or unsubstituted benzyl, wherein said substituents are selected from the group consisting of halogen, halo(C<sub>1</sub>-C<sub>4</sub>)alkyl, halo(C<sub>1</sub>-C<sub>4</sub>)alkoxy, cyano, nitro and phenyl.

151. (Currently amended) The A compound of Claim 136, having the formula:



or a pharmaceutically acceptable salt thereof wherein:

A<sup>4</sup> is N;

X is -C(O)- or -CH<sub>2</sub>-;

R<sup>1</sup> and R<sup>2</sup> are members independently selected from the group consisting of H and (C<sub>1</sub>-C<sub>4</sub>)alkyl;

R<sup>3</sup> is selected from the group consisting of substituted or unsubstituted pyridyl and substituted or unsubstituted imidazolyl;

R<sup>4</sup> is a member selected from the group consisting of (C<sub>1</sub>-C<sub>20</sub>)alkyl, (C<sub>2</sub>-C<sub>20</sub>)heteroalkyl, heteroaryl, aryl, heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkyl, heteroaryl(C<sub>2</sub>-C<sub>6</sub>)heteroalkyl, aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl and aryl(C<sub>2</sub>-C<sub>6</sub>)heteroalkyl;

R<sup>14</sup> is a substituted or unsubstituted member selected from the group consisting of phenyl, pyridyl, thiazolyl, thienyl and pyrimidinyl;

Q is -C(O)-;

L is (C<sub>1</sub>-C<sub>8</sub>)alkylene;

the subscript n is an integer from 0 to 4; and

each R<sub>a</sub> is independently selected from the group consisting of halogen, -OR', -OC(O)R', -NR'R'', -SR', -R', -CN, -NO<sub>2</sub>, -CO<sub>2</sub>R', -CONR'R'', -C(O)R', -OC(O)NR'R'', -NR"C(O)R', -NR"C(O)<sub>2</sub>R', -NR'-C(O)NR"R'', -NH-C(NH<sub>2</sub>)=NH, -NR'C(NH<sub>2</sub>)=NH, -NH-C(NH<sub>2</sub>)=NR', -S(O)R', -S(O)<sub>2</sub>R', -S(O)<sub>2</sub>NR'R'', -N<sub>3</sub>, -CH(Ph)<sub>2</sub>, perfluoro(C<sub>1</sub>-C<sub>4</sub>)alkoxy and perfluoro(C<sub>1</sub>-C<sub>4</sub>)alkyl, wherein R', R'' and R''' are each independently selected from the

group consisting of H, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, unsubstituted aryl, unsubstituted heteroaryl, (unsubstituted aryl)-(C<sub>1</sub>-C<sub>4</sub>)alkyl and (unsubstituted aryl)oxy-(C<sub>1</sub>-C<sub>4</sub>)alkyl.

152. (Currently amended) The compound of Claim 136 141, wherein R<sup>1</sup> and R<sup>2</sup> are each independently selected from the group consisting of H, methyl and ethyl; R<sup>14</sup> is phenyl; L is methylene, ethylene or propylene; and R<sup>3</sup> is selected from the group consisting of substituted or unsubstituted pyridyl and substituted or unsubstituted imidazolyl; and R<sup>4</sup> is substituted or unsubstituted benzyl, wherein said substituents are selected from the group consisting of halogen, halo(C<sub>1</sub>-C<sub>4</sub>)alkyl, halo(C<sub>1</sub>-C<sub>4</sub>)alkoxy, cyano, nitro and phenyl.

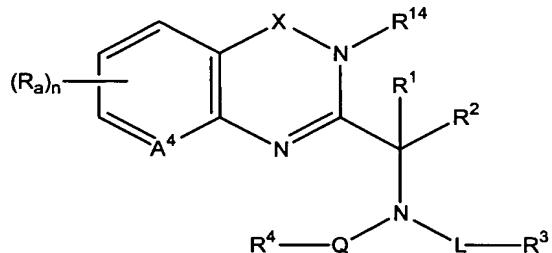
153. (Currently amended) A pharmaceutical composition comprising the compound of Claim 136 141, 146, 148 or 151 and a pharmaceutically acceptable carrier or diluent.

154.-202. (Canceled).

203. (Currently amended) A method for the modulation of CXCR3 function in a cell, comprising contacting said cell with a compound of Claim 136 141, 146, 148 or 151.

204. (Currently amended) A method for the modulation of CXCR3 function, comprising contacting a CXCR3 protein with a compound of Claim 136 141, 146, 148 or 151.

205. (Currently amended) A compound having the formula:



or a pharmaceutically acceptable salt thereof wherein:

A<sup>4</sup> is N;

X is -C(O)- or -CH<sub>2</sub>-;

R<sup>1</sup> and R<sup>2</sup> are members independently selected from the group consisting of H and (C<sub>1</sub>-C<sub>4</sub>)alkyl;

$R^3$  is a member selected from the group consisting of hydroxy,  $(C_1-C_8)$ alkoxy, amino,  $(C_1-C_8)$ alkylamino, di $(C_1-C_8)$ alkylamino,  $(C_2-C_8)$ heteroalkyl,  $(C_3-C_9)$ heterocyclyl,  $(C_1-C_8)$ acylamino, amidino, guanidino, ureido, cyano, heteroaryl,  $-CONR^9R^{10}$  and  $-CO_2R^{11}$ ;

$R^4$  is a member selected from the group consisting of  $(C_1-C_{20})$ alkyl,  $(C_2-C_{20})$ heteroalkyl, heteroaryl, aryl, heteroaryl $(C_1-C_6)$ alkyl, heteroaryl $(C_2-C_6)$ heteroalkyl, aryl $(C_1-C_6)$ alkyl and aryl $(C_2-C_6)$ heteroalkyl;

$R^4$  is substituted or unsubstituted benzyl, wherein said substituents are selected from the group consisting of halogen, halo $(C_1-C_4)$ alkyl, halo $(C_1-C_4)$ alkoxy, cyano, nitro and phenyl;

each  $R^9$ ,  $R^{10}$  and  $R^{11}$  is independently selected from the group consisting of H,  $(C_1-C_8)$ alkyl,  $(C_2-C_8)$ heteroalkyl, heteroaryl, aryl, heteroaryl $(C_1-C_6)$ alkyl, heteroaryl $(C_2-C_8)$ heteroalkyl, aryl $(C_1-C_8)$ alkyl and aryl $(C_2-C_8)$ heteroalkyl;

$R^{14}$  is substituted or unsubstituted aryl or heteroaryl;

Q is  $-C(O)-$ ;

L is  $(C_1-C_8)$ alkylene;

the subscript n is an integer from 0 to 4; and

each  $R_a$  is independently selected from the group consisting of halogen,  $-OR'$ ,  $-OC(O)R'$ ,  $-NR'R''$ ,  $-SR'$ ,  $-R'$ ,  $-CN$ ,  $-NO_2$ ,  $-CO_2R'$ ,  $-CONR'R''$ ,  $-C(O)R'$ ,  $-OC(O)NR'R''$ ,  $-NR''C(O)R'$ ,  $-NR''C(O)_2R'$ ,  $-NR'-C(O)NR''R''$ ,  $-NH-C(NH_2)=NH$ ,  $-NR'C(NH_2)=NH$ ,  $-NH-C(NH_2)=NR'$ ,  $-S(O)R'$ ,  $-S(O)_2R'$ ,  $-S(O)_2NR'R''$ ,  $-N_3$ ,  $-CH(Ph)_2$ , perfluoro $(C_1-C_4)$ alkoxy and perfluoro $(C_1-C_4)$ alkyl, wherein R', R'' and R''' are each independently selected from the group consisting of H,  $(C_1-C_8)$ alkyl,  $(C_2-C_8)$ heteroalkyl, unsubstituted aryl, unsubstituted heteroaryl, (unsubstituted aryl)- $(C_1-C_4)$ alkyl and (unsubstituted aryl)oxy- $(C_1-C_4)$ alkyl.

206. (Previously presented) The compound of Claim 205, wherein X is  $-C(O)-$ .

207. (Previously presented) The pharmaceutical composition of Claim 153, wherein X is  $-C(O)-$ .

208. (Previously presented) The pharmaceutical composition of Claim 153, wherein  $R^{14}$  is a substituted or unsubstituted phenyl.

209.-210. (Canceled).

211. (Previously presented) The pharmaceutical composition of Claim 153, wherein R<sup>14</sup> is selected from the group consisting of substituted phenyl, substituted pyridyl, substituted thiazolyl and substituted thienyl, wherein the substituents are selected from the group consisting of cyano, halogen, (C<sub>1</sub>-C<sub>8</sub>)alkoxy, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, CONH<sub>2</sub>, methylenedioxy and ethylenedioxy.

212.-214. (Canceled).

215. (Previously presented) The pharmaceutical composition of Claim 153, wherein L is (C<sub>1</sub>-C<sub>4</sub>)alkylene.

216. (Canceled).

217. (Currently amended) The method of Claim ~~154~~ 203, wherein X is -C(O)-.

218. (Currently amended) The method of Claim ~~154~~ 203, wherein R<sup>14</sup> is a substituted or unsubstituted phenyl.

219-220. (Canceled).

221. (Currently amended) The method of Claim ~~154~~ 203, wherein R<sup>14</sup> is selected from the group consisting of substituted phenyl, substituted pyridyl, substituted thiazolyl and substituted thienyl, wherein the substituents are selected from the group consisting of cyano, halogen, (C<sub>1</sub>-C<sub>8</sub>)alkoxy, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, CONH<sub>2</sub>, methylenedioxy and ethylenedioxy.

222. (Previously presented) The method of Claim 221, wherein R<sup>14</sup> is substituted phenyl, wherein the substituents are selected from the group consisting of cyano, halogen, (C<sub>1</sub>-C<sub>8</sub>)alkoxy, (C<sub>1</sub>-C<sub>8</sub>)alkyl, (C<sub>2</sub>-C<sub>8</sub>)heteroalkyl, CONH<sub>2</sub>, methylenedioxy and ethylenedioxy.

223.-224. (Canceled).

225. (Currently amended) The method of Claim 154 204, wherein L is (C<sub>1</sub>-C<sub>4</sub>)alkylene.

226. (Canceled).